


**TOP SECRET**CONTROL NO. TCS-8427/70

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TCS-8427-70  
8 October 1970

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MEMORANDUM FOR: Chief, Technical Services Group, NPIC

ATTENTION : Chief, PPS/TSG

SUBJECT : RED Monthly Report on Significant Events  
(September 1970)

A. Significant Items of Interest for September 1970:

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[REDACTED]

2. Imagery Interpretation Research Program. The FY-69/70 [REDACTED] Imagery Interpretation Research Program expired on 24 August. An extensive series of briefings on research findings will be offered Center personnel during October. The FY-71 contract was successfully negotiated on 9 September.

25X1A

3. Evaluation of [REDACTED] Color Chips. ATB personnel have completed a preliminary evaluation of the use of opaque Munsell color chips to describe the color of filters as seen in a microscope. Intersubject variability was found to be so large as to recommend against the use of [REDACTED] chips for this application.

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25X1A

4. Colorimetric Measurement Report. [REDACTED] report on Colorimetric Measurement of SO-242 has been released within NPIC.

25X1A

5. [REDACTED] The final report on "The Chemistry of Non-Silver Halide Photographic Processes" has been received from [REDACTED]. It covers the dry silver and RS processes and is very informative.

25X1A

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6. Image Manipulation Research Facility [REDACTED]  
The input scanner and video display output were given initial acceptance tests on 7-8 September; both failed. Corrective action is being taken--the new scheduled delivery date is 2 November 1970.

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7. Photographic Image Manipulation (Ring Smear, IR&D). In-house ring smear experiments have begun in a cooperative effort with the Photo Lab, PSG. Initial work will be concerned with mounting the ring smear device on the BPE. Tests on positive transparency and paper materials are planned.

8. Power Spectral Density - Quality Measures [REDACTED]. The first successful tests on subjectively graded, operational imagery were completed. Further testing on a greater variety of images is necessary and underway; the prognosis is encouraging.

9. Automatic Stereo Scanner Engineering Audit [REDACTED]. The equipment has been reassembled at [REDACTED] and is essentially at the same stage of assembly as it was when [REDACTED] stopped work on it. The engineering audit is now in progress and is on schedule.

10. Automatic Target Indexing Device [REDACTED]. The system has been assembled and is undergoing final shakedown and adjustment. While the general analysis mode is operating satisfactorily, there have been problems with the target indexing mode of operation. These problems were related to the [REDACTED] DDP-516 controlling computer and a timing/synchronization difficulty. At this point, the computer problem has apparently been solved and considerable progress has now been made on the timing/synchronization difficulty.

An additional problem, which will cause a delay in delivery of the TID, is that the replacement transform lenses will not be delivered (by the subcontractor) early in October as anticipated, but will arrive during the latter part of October. These lenses have been on order for several months. The lenses presently installed in the TID perform less than optimum; due to improper coatings, they are producing some unwanted spurious effects.

The aforementioned problems and the resultant delivery delay will result in an additional overrun, the magnitude of which cannot be precisely determined at this time but is estimated to be between [REDACTED]

A revised shipping date of 6 November appears to be realistic at this time.

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11. Image Comparison Microstereoscope [REDACTED] The project is still in a "stop-work" status. Negotiations were held at [REDACTED] in late September and agreements were reached regarding fixed ceilings on overhead and G&A rates and the cost to complete the instrument were negotiated on a cost-sharing basis. Work is expected to resume about 15 October with delivery anticipated at the end of March 1971.

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12. Chip Implementation Study Program [REDACTED] The Phase I report on the Chip Implementation Study Program has been reviewed. The recommendations to the ExDir/NPIC are that NPIC not proceed with Phase II and that the contract be terminated. [REDACTED] performed very well on this contract and enough information is available in the Phase I report to implement the program, if NPIC so desires.

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13. Scan & Search PI Station. The final report for the design of the Scan & Search PI Station has been received and is being evaluated. The design drawings are in shipment and should arrive at NPIC by mid-October.

14. 1540 Light Tables [REDACTED] Information Systems personnel gave a progress report on the 1540 tables to NPIC and other interested organizations. The estimated delivery of the first table has slipped about 3 weeks, from 5 to 26 October. However, the first 145 units are still to be delivered on schedule by 1 January 1971.

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15. Advanced Stereorhomboid [REDACTED] A visit was made to [REDACTED] to verify a re-evaluation of resolution on the Advanced Stereorhomboid as reported by the contractor. The resolution data taken by NPIC personnel substantiated the results of the [REDACTED] re-evaluation, and a determination has been made that the prototype instrument is acceptable with respect to resolution.

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16. High Precision Stereocomparator. [REDACTED] has encountered some difficulty with the computer used in the [REDACTED] Stereocomparator. The computer has been repaired by the manufacturer [REDACTED] but several weeks' work has been lost and will more than likely be ultimately reflected in the delivery schedule.

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17. Dry Silver Equipment. Two pieces of equipment, a prototype 40" Wide Enlarger Paper Processor and a Dry Silver Sheet-Film Processor developed under the [REDACTED] Dry Silver Program, have been delivered to NPIC and will shortly undergo extensive test and evaluation.

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18. AQ System Test. Additional domestic collateral photo coverage was requested by ORD for the AQ system test program. The second test flight of the airborne platform was unsuccessful.

19. Sensitometric Color Processor. A project Approval Request for development of a precision sensitometric color processor by Sickles Corporation has received final approval.

20. Color Analyzer. A proposal was received from [REDACTED] for a color analyzer. This proposal was rejected based upon its excessively high cost. An alternative source for this instrument will be sought.

21. Briefings and Consultations:

b. [REDACTED]/ATB and [REDACTED] personnel met with [REDACTED] National Bureau of Standards, on 28 September. [REDACTED] who enjoys international recognition as an expert in the field of color and color perception, has been retained as a consultant under the [REDACTED] contract.

c. [REDACTED] of SAC was briefed on the development of the 40" and 10" Dry Silver Processors.

e. RSB personnel attended several meetings related to the [REDACTED] project. The ODir/NPIC was briefed on the progress of the project.

g. RSB sponsored a briefing on [REDACTED] given 17 September to NPIC by DIA.

h. RSB provided representation at several Color Task Force and other color-related meetings.

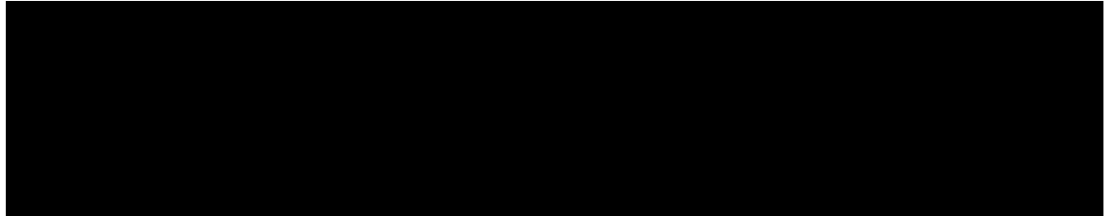
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22. Training:

- a. [REDACTED] attended the 67th Annual American Psychological Association Convention in Miami Beach, Florida, 3-8 September.
- b. [REDACTED] attended an intensive short course on "The Science and Technology of Information Display" at Brooklyn Polytechnic Institute, 14-19 September.
- c. [REDACTED] Design show in New York City on 23 September.
- d. [REDACTED] completed the IIS training package early in September.

22. Personnel:

[REDACTED] joined the SRB staff on 22 September. [REDACTED] is an engineer formerly with [REDACTED]

B. Anticipated Items of Interest for October 1970

- 1. Preacceptance tests for the first production unit of the 1540 table are scheduled to start 26 October 1970.
- 2. Proposals scheduled to arrive during October are:
  - a. Scanning Viewer Investigation
  - b. Variable Density Reticule Development
  - c. Dry Color Development

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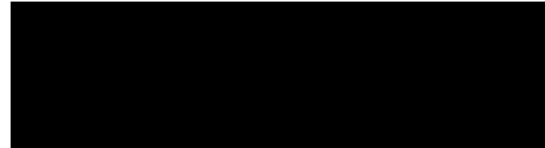
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- d. Compact High-Speed Dry Silver Processor
- e. PI Print-Out Station



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Deputy Chief  
Research & Engineering Division,  
TSG/NPIC

Distribution:

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25X1A NPIC/TSG/RED/ [REDACTED] cgw/ [REDACTED] (8 October 1970)

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